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UNITED STATES DEPARTMENT OF AGRICULTURE
Soil Conservation Service
Washington 25, D.C.

FIELD MEMORANDUM #1123
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TO: All Ranking Field Officers

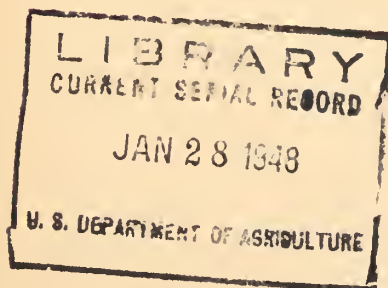
FROM: H. H. Bennett, Chief

SUBJECT: Policies Governing Soil Conservation Surveys

The purpose of the attached statement is to clarify the policy, administration, technical direction, and field relationships affecting the collection and use of land information in the Service's program. This statement contains a summary of: (1) General Service policies affecting soil conservation surveys; (2) Technical policy on soil conservation surveys; and (3) Administration and functions, as staff officers, of soil scientists in the Soil Conservation Service at Washington, Regional and field locations. It brings together information contained in official memoranda, correspondence, job descriptions, and other sources, but contains no new instructions.



Chief.





POLICIES GOVERNING SOIL CONSERVATION SURVEYS

The following statement is a summary of: (1) General Service policies affecting soil conservation surveys; (2) Technical policy on soil conservation surveys; and (3) Administration and functions, as staff officers, of soil scientists in the Soil Conservation Service at Washington, Regional, and field locations. It brings together information contained in official memoranda, correspondence, job descriptions, and other sources, but contains no new instructions.

General Policies

The general Service policies and principles particularly affecting the functions of Soil Conservation Surveys personnel may be briefly summarized as follows:

1. Maintain a coordinated technical approach to soil and water conservation and land-use problems in which each acre on each farm is used in accordance with its capabilities and treated in accordance with its needs.
2. Employ as a basis for all planning activities, a classification of land according to use capability, together with recommendations for each kind of land as to cropping systems, practices, measures, and soil treatment.
3. Make a record of significant land facts on a map to give a basis for farm conservation planning. Have this map made by a professional employee who is trained in recognizing and mapping land conditions.
4. Make information about the land available in terms readily usable and understandable to farmers and ranchmen.
5. Obtain and disseminate to the general public information about soil erosion, soil conservation, and good land use.
6. Cooperate with State and Federal agencies in obtaining information about the land needed for programs of soil and water conservation.

The basis for this cooperation is a working arrangement with each State, the key points of which are:

- a. A soil scientist, who is acceptable to the State Agricultural Experiment Station, 1/ is located by the Soil Conservation Service in each State (where the quantity of work justifies) to work with the appropriate State Agricultural Experiment Station 1/ workers. He is a full-time SCS employee.
- b. The soil scientist (with the working title, "State Soil Scientist") may at the option of the State Agricultural Experiment Station be accorded the privileges of a member of the Station staff.
- c. The State Soil Scientist and the State Agricultural Experiment Station representative recommend the type of survey (farm planning or basic) that is needed to carry out programs of soil conservation districts and to meet other needs of the area. These recommendations are submitted to the State Conservationist and to the Director of the State Agricultural Experiment Station for administrative decisions as to participation in surveys.
- d. Farm planning soil conservation surveys will be made according to work plans and legends developed jointly by the Soil Conservation Service and the State Agricultural Experiment Station. 1/
- e. Basic soil surveys will be made in accordance with work plans and legends developed jointly by the State Agricultural Experiment Station 1/; the Bureau of Plant Industry, Soils and Agricultural Engineering; and the Soil Conservation Service, and will be inspected and correlated with approved procedures.

Technical Policy on Surveys

The term "farm planning soil conservation survey" is used to indicate a type of survey designed primarily for use as a basis for conservation farm planning, that emphasizes the need for recognizing and mapping only the variations in land that affect its use and management based on existing knowledge. It stresses those land characteristics that significantly affect conservation practices, crop adaptation, crop yields, response to treatments and management requirements.

The "basic soil survey" is of a research nature and is more concerned with detailed studies and delineations that emphasize soil classification, genesis, morphology, and nomenclature.

1/ In those States where the State Agricultural Experiment Station does not have responsibility for soil survey work, arrangements are developed and the work is carried out with the appropriate State agency.

Farm planning soil conservation surveys should meet the following requirements:

- a. Mapping will cover the farms or areas for which information is likely to be needed in soil conservation operations in the near future.
- b. Land factors mapped on a farm planning soil conservation survey will be soil units, slopes, and erosion classes. Certain additional factors, such as flood hazards, degree of wetness, or any others that have significance, are also mapped if they are needed. Land use at the time of the survey is essential for conservation planning and for other uses. Climate is a factor in every land-capability classification. If significant variations exist within a soil conservation district or survey area, they should be delineated and considered.
- c. They will provide for mapping soil units which on the basis of existing data have significantly different use capabilities, or significantly different needs for management or conservation.

Basic soil surveys should meet the following requirements:

- a. Mapping will be progressive and contiguous within a county or other area name in the work plan.
- b. Standard Nation-wide soil nomenclature will be used.
- c. The information should meet the needs of each participating agency.
- d. A descriptive legend will be used to cover all mapping units recognized in the field work. (This is a narrative description of each of the combinations of symbols shown on the field sheets. It will need to be prepared in the early stages of the survey by the party chief and inspector and revised from time to time during the progress of the survey).
- e. A report will be prepared for the regular soil survey series.
- f. A party chief will be assigned to be responsible for the mapping throughout the duration of the survey and for the preparation of the report.

Determination of areas for "farm planning soil conservation surveys" and "basic soil surveys";

1. The Soil Conservation Service will make farm planning soil conservation surveys for the purpose of obtaining land information needed as a basis for developing farm conservation plans in areas where:

- a. An operations program is active or contemplated in the near future.
 - b. Land information now on hand is inadequate for carrying out a conservation program.
 - c. An immediate basic soil survey is not feasible.
2. The Soil Conservation Service can participate in basic soil surveys where other agencies carry a compensating share of the cost, and where all of the following conditions prevail:
 - a. In areas where the Soil Conservation Service is authorized to carry out an operations program, such as that of a soil conservation district.
 - b. The area is a representative one so that the information acquired can be used in developing programs in other similar areas.
 - c. The basic soil survey is needed and meets the requirements for farm planning so as to be considered an essential and integral part of the Service's operations.

Administration and Functions

The primary functions of the Washington Soil Conservation Surveys Division are:

1. Formulate and recommend soil conservation survey policies.
2. Coordinate and disseminate techniques and methods of obtaining land information to meet the needs of the Service.
3. Perform staff duties in the fields of soil conservation surveys, soil science, and soil technology. Work with other Divisions as needed. Examples of types of work duties of the Soil Conservation Surveys Division are: Conservation needs, permeability measurements, drainage recommendations, sedimentation surveys, and flood control work.
4. Represent the Service as assigned in survey arrangements with other agencies.
5. Maintain national uniformity in the general objectives and principles of making surveys and using land information.
6. Provide technical leadership and assistance to staff members in the regions.
7. Analyze from a national standpoint land data obtained from surveys for use in applying soil conservation practices.
8. Prepare written reports and papers as needed for in-Service use and for publication.

The primary functions of the Regional Soil Conservation Surveys Division are:

1. Apply national policies and standards governing soil conservation surveys in the light of regional conditions; and formulate regional policies, standards, and procedures.
2. Perform staff duties in the fields of soil conservation surveys, soil science, and soil technology.
3. Give technical guidance and assistance to field technicians in making, interpreting, and using soil conservation surveys.
4. Assemble and make available to Service personnel information pertaining to soils and related physical land conditions needed as a basis for the soil and water conservation operations program within the region.
5. Collaborate in developing and maintaining cooperative working arrangements with Federal agencies and with individual State agencies concerned with surveys.
6. Examine or inspect soil conservation survey field work to assure adherence to general Service policies and standards.
7. Collaborate with other Regional Divisions in the analysis, interpretation, and use of soil conservation surveys.
8. Integrate survey work with activities of other Divisions to carry out the program of the Service.

The State Soil Scientist is a member of the Regional Soil Conservation Surveys Division and is responsible to the Chief of the Regional Soil Conservation Surveys Division. However, the State Soil Scientist is available to counsel with, advise, and when so assigned, assist the State Conservationist in the administration of survey personnel, along with the performance of his regular technical duties. He will schedule his activities after joint consultation with the State Conservationist and the Chief of the Regional Soil Conservation Surveys Division.

The State Soil Scientist has authority and responsibility for the Service's part in the technical aspects of the survey program in the State to which assigned (within the framework of the Service policies and standards and Departmental regulations). His principal duties and responsibilities are:

1. To cooperate with appropriate State Agricultural Experiment Stations workers and with representatives of other appropriate agencies concerned with surveys with regard to the technical procedure for conducting surveys and interpreting physical land conditions.

2. To collaborate in the interpretation and integration of surveys with other phases of the soil and water conservation program, including the need for and the kind of surveys, as a basis for allocating and assigning survey personnel.
3. To represent the Service in classifying land and participating in developing recommendations for practices, measures, and treatments for each land class.
4. To be responsible for participation of the Soil Conservation Service in the preparation of reports on physical land conditions for local release and for publication.
5. To represent the Service in the development of mapping legends and the reviewing of field survey work, field notes and maps for accuracy and completeness.
6. To cooperate with the State Agricultural Experiment Station in utilizing results and conclusions of its experiments and researches in land use and soil and water conservation in the soil conservation program throughout the State.
7. To do mapping and to give technical supervision to Soil Conservation Service personnel engaged in mapping, classifying and interpreting land conditions.
8. To assist Soil Conservation Service planning technicians in the utilization of information on soils and related factors in developing farm conservation plans.

The State Conservationist administers the soil conservation program, of which soil conservation surveys are an integral part, within his State. He is responsible for administration and must see that the work is carried out to meet the standards required for the operations program of the Service.

The administrative decisions as to the number and location of survey personnel, and the Service's decision within Service policies and regulations as to the number and type of surveys in which the Soil Conservation Service participates, will be made by the State Conservationist. He will rely on the State Soil Scientist collaborating with the Experiment Station for recommendations before making decisions.

Survey supervisors may be assigned to a designated area within a State when the work load is adequate to justify the need for such a position in the State. Official headquarters will be located, at the direction of the State Conservationist, at a point convenient for travel and near the center of the work load. The survey supervisor is responsible to the State Soil Scientist. The selection and designation of an area to be assigned to a survey supervisor is determined by:

- a. The complexity of the soil problems.
- b. The volume of survey activities.
- c. The different kinds of soil and water conservation work operating in the area which utilizes the soil conservation survey.

The survey supervisor performs the following duties within the area assigned to him, under the technical direction of the State Soil Scientist:

1. Give technical supervision to Soil Conservation Service personnel, in his assigned area, who are engaged in mapping, classifying and interpreting land conditions.
2. Prepare or assist in preparing survey legends. Review survey legends to determine their adequacy and the need for revision. Recommend necessary revisions to the State Soil Scientist.
3. Train survey personnel assigned to him. Train work group and work unit personnel as assigned in identification and interpretation of land conditions and in use of maps and other land information.
4. Make reconnaissance surveys or other surveys to meet the needs of the Service.
5. Collaborate with work group personnel, zone conservationists, and regional office representatives in work involving collection, interpretation and use of land information: Especially in the development and revision of land-capability tables and recommendations, and plans for flood control surveys or operations.
6. Write and assist in writing survey reports and all types of written information about the land that will help in carrying out the Service's program.
7. Give professional assistance in soil science as needed to Service personnel in his area.

The work group soil scientist is administratively responsible to the district conservationist but will receive technical guidance and assistance from the State Soil Scientist or the survey supervisor. He is headquartered at a point conveniently located within the assigned territory -- a work group headquarters is preferred. His principal duties are:

1. To do mapping work and maintain technical standards established for survey procedures.
2. To assist in making interpretations of special soil conditions needed for soil conservation operations.
3. To assist farm planners in the use and interpretation of soil conservation survey data. This includes participation in the preparation and revision of land-capability tables and recommendations.
4. To give professional assistance to work group personnel on questions involving soil science. This includes asking for help from the survey supervisor if help is needed.
5. Train and supervise survey personnel assigned to him.
6. To assist in preparation of reports on physical land conditions and other written materials, such as simple descriptions and legends to accompany farm maps.
7. To assist in farm planning activities.

Soil scientists, P-1, may be assigned to a work group soil scientist for training in conservation survey work and to assist with the mapping load. They are responsible to the work group soil scientist.